

QS-PDS-1064 Revision 01

**Formula** LiOH·H<sub>2</sub>O

**Appearance** White crystals

**Application** A free-flowing, granular solid with greatly reduced levels of CaO, NaOH and Mg. Purified grade is used in the manufacture of fine chemicals and specialty greases. It is also suitable for use in production of cathode materials for lithium ion batteries.

<b>Product Specifications</b>	<b>Guaranteed</b>
	LiOH, wt% 56.5 min
	CO <sub>2</sub> , wt% 0.35 max
	Cl, wt% 0.0020 max
	SO <sub>4</sub> , wt% 0.010 max
	CaO, wt% 0.020 max
	Fe <sub>2</sub> O <sub>3</sub> , wt% 0.0020 max
	NaOH, wt% 0.0030 max
	Acid Insolubles, wt% 0.010 max

<b>Other Data</b>	Bulk density	Loose	0.9 g/cm <sup>3</sup>
		Tap	1.0 g/cm <sup>3</sup>

<b>Physical Properties</b>	Molecular weight	41.96
	Density @ 20°C	1.51 g/cm <sup>3</sup>
	Standard heat of formation	-188.9 kcal/mole
	Standard heat of fusion	-0.867 kcal/mole
	Specific heat @ 25°C	0.453 cal/g/°C
	Loses water of hydration	100 -110°C

<b>Water Solubility</b>	Temperature (°C)	Weight percent LiOH in saturated solution*
	0	10.7
	20	10.9
	100	14.8

\* The solid phase in equilibrium with saturated solution is the monohydrate, LiOH·H<sub>2</sub>O.

**LITHIUM HYDROXIDE MONOHYDRATE PURIFIED****CAS No. 1310-66-3**

**Toxicity/Safety Data** Causes severe skin burns and eye damage. Harmful if swallowed. Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

*COMPLETE INFORMATION ON TOXICITY AND SAFETY IS CONTAINED IN THE SAFETY DATA SHEET (SDS) AVAILABLE FOR THIS PRODUCT.*

**Handling/Storage/Disposal** Do not get in eyes, on skin or clothing. Avoid breathing dust. Wash thoroughly after handling. Keep container closed. Store away from acids and water. Dispose of waste according to local and Federal laws and regulations.

**Shipping Containers** 50lb (22.7kg) bags, shipped 40 to a pallet.  
100 kg polyethylene-lined fiber drums  
Supersacks of discrete weight between 400 and 2200 lb (182 - 1000kg)

**Shipping Limitations** Shipments of lithium hydroxide are described as "Lithium Hydroxide, UN 2680." All shipments are Hazard Class 8 and require "Corrosive" labels.

Post	Not acceptable
Parcel, Air	Restricted quantities
Sea	Class 8 (IMDG)
Road, Rail	Class 8.41 b (RID/ADR)